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Media Advisory

TARDEC

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TARDEC Experts Play Prominent Role in Power & Energy (P&E) Workshop

DETROIT ARSENAL, WARREN, MI ─ U.S. Army Tank Automotive Research, Development and Engineering Center (TARDEC) experts played prominent roles in the National Defense Industrial Association (NDIA) Michigan Chapter's 2008 Ground-Automotive Power & Energy Workshop, Nov. 18-19, in Troy, MI.

Co-chaired by TARDEC's Ground Vehicle Power and Mobility (GVPM) Associate Director Chuck Coutteau, the event brought together engineers, scientists and researchers from a variety of institutions to discuss rapidly changing military and commercial vehicle P&E technologies. Officials expect the workshop will provide input to TARDEC's power and energy strategy.

Unlike traditional conferences, this event provided "the opportunity for participants to really get under the hood," explained Coutteau. "This is about rolling up our sleeves, harnessing the intellectual capital in the room and focusing on the significant challenges facing us today."

To prove that point, attendees listened to brief yet compelling keynote addresses by Center for Automotive Research (CAR) Director Dr. David E. Cole and Oak Ridge National Laboratory (ORNL) Department of Defense Programs Director LTG (Ret) George A. Fisher. CAR, a nonprofit organization, focuses on a wide variety of automobile trends and changes, and ORNL is the Department of Energy's (DOE's) largest science and energy laboratory.

Following the keynote speakers, attendees were divided into working groups structured around key issues in prime power, non-primary power, energy storage, and power and thermal management. Coupled with the energy storage review was a "battery summit" chaired by TARDEC's National Automotive Center (NAC) Director Paul Skalny, which featured presentations by TARDEC advanced battery subject-matter experts (SMEs) Sonya Gargies and Erik Kallio.

TARDEC Director Dr. Grace M. Bochenek set the stage during her opening remarks. "This roster, this session content represents technical wealth, and in this room there is a great wealth of experience. At TARDEC, we can't say enough about the warfighters and what they sacrifice for the luxuries we enjoy every day. This is what my organization thinks about, and I ask you to keep this in the back of your minds as you consider the challenges

before us and how best we should set our course. In large part, the warfighters are what fuel TARDEC's need to drive power and energy strategy."

Cole then outlined state-of-the-state automotive power needs and highlighted the benefits afforded by modeling and simulation, while emphasizing the critical need for collaboration between industry and the military. "Clearly, we are at an interesting time in the auto industry," Cole remarked. "We're well aware that this is the center of a perfect storm, and we live in amazingly interesting times from an energy perspective, as well. Alliances are absolutely necessary, which is why the creation of the NAC was so important. It makes infinite sense to work together."

Fisher spoke from a different perspective, highlighting the increasing demand for power on the battlefield, especially as it pertains to the future fight. In describing the concept of an autonomous electric brigade, Fisher posed the question, "If this is the force that follows [Future Combat Systems], how do we get there?" He also outlined the possible uses of nanotechnology and high thermal conductivity graphite foam. Graphite foam is of key interest to ORNL as it is the only known material that can absorb sound, reflect electromagnetic energy and conduct heat.

Other presenters included University of Michigan Mechanical Engineering Professor Dr. Dennis N. Assanis, Delphi Chief Fuel Cells Engineer Steve Shaffer and Air Force Research Laboratory Deputy for Science Dr. Kirk Yerkes.

TARDEC is an active NDIA member, whose mission is to advocate for cutting-edge technology and superior weapons, equipment, training and support for warfighters and first responders; to promote a vigorous, responsive, government-industry national security team; and to provide a legal and ethical forum for exchange of information between industry and government on national security issues.

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Note: There are six photos available for use with this release. Caption information follows. To download the photo, go to http://www.tardec.info/pressreleases/.

Captions:

TARDEC-PR-0841_1_Coutteau.jpg

TARDEC GVPM Associate Director Chuck Coutteau co-chaired the Michigan Chapter of the NDIA's 2008 Ground-Automotive P&E Workshop, Nov. 18-19, in Troy, MI. The event brought together engineers, scientists and researchers from a variety of institutions to discuss rapidly changing military and commercial vehicle P&E technologies. (U.S. Army TARDEC Photo by Liz Carnegie.)

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TARDEC-PR-0841_2_Bochenek.jpg

TARDEC Director Dr. Grace M. Bochenek gives opening remarks at NDIA's 2008 Ground-Automotive P&E Workshop. Bochenek highlighted TARDEC's commitment to warfighters and their needs, which drive the organization's P&E strategy. (U.S. Army TARDEC Photo by Liz Carnegie.)

TARDEC-PR-0841_3_Skalny.jpg

Coupled with an energy storage review, TARDEC NAC Director Paul Skalny chaired a battery summit at the NDIA's 2008 Ground-Automotive P&E Workshop. TARDEC advanced battery SMEs Sonya Gargies and Erik Kallio were featured during the summit. (U.S. Army TARDEC Photo by Liz Carnegie.)

TARDEC-PR-0841_4_Fischer.jpg

Keynote speaker ORNL Department of Defense Programs Director LTG (Ret) George A. Fisher addresses attendees at the NDIA 2008 Ground-Automotive P&E Workshop. ORNL is DOE's largest science and energy laboratory and was established in 1943 as a part of the secret Manhattan Project to pioneer a method for producing and separating plutonium. (U.S. Army TARDEC Photo by Liz Carnegie.)

TARDEC-PR-0841_5_Cole.jpg

Keynote speaker CAR Director Dr. David E. Cole addresses the NDIA's 2008 Ground-Automotive P&E Workshop. Located in Ann Arbor, MI, CAR is involved in the research of significant issues relating to the future direction of the global automotive industry. (U.S. Army TARDEC Photo by Liz Carnegie.)

TARDEC is the Nation's laboratory for advanced military ground systems and automotive technology. A leading technology integrator for the U.S. Army Materiel Command's Research Development and Engineering Command (RDECOM), TARDEC is headquartered at the Detroit Arsenal in Warren, MI, located in the heart of the world's automotive capitol. TARDEC is a major element of RDECOM and partner in the TACOM Life Cycle Management Command. As a full life-cycle engineering support provider-of-first-choice for all DOD ground combat and combat support weapons and vehicle systems, TARDEC develops and integrates the right technology solutions to improve Current Force effectiveness and provide superior capabilities for the Future Force. TARDEC's technical staff leads research in ground vehicle survivability; mobility/power and energy; robotics and intelligent systems; maneuver support and sustainment; and vehicle electronics and architecture. TARDEC develops and maintains ground vehicles for all U.S. Armed Forces and numerous federal agencies.

For additional information about TARDEC's forthcoming developments and other technologies, please contact ***Mike Roddin at*** **Mike.Roddin@us.army.mil.**